NHSN LabID Event Surveillance

TDH HAI Program | January 19th, 2021

Housekeeping

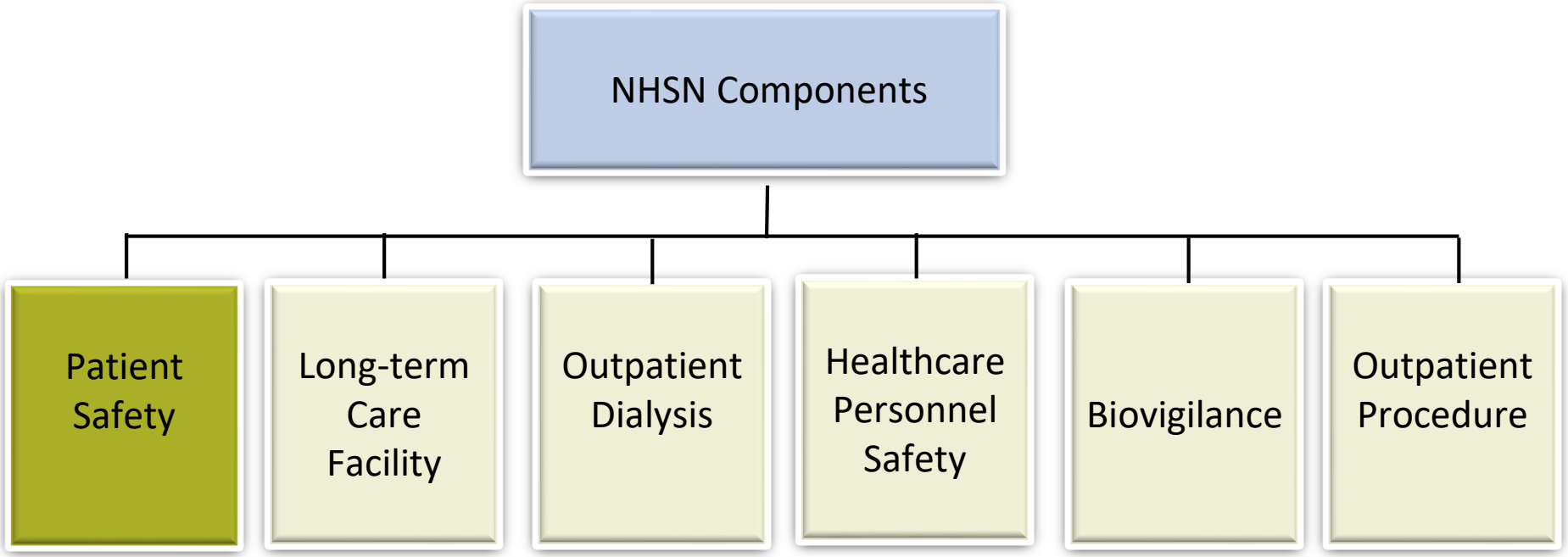
- **This call is being recorded and will posted on our website.**
- **All questions will be answered at the end.**
- **Press *6 to unmute your line to ask a question or use the chat box.**

Outline

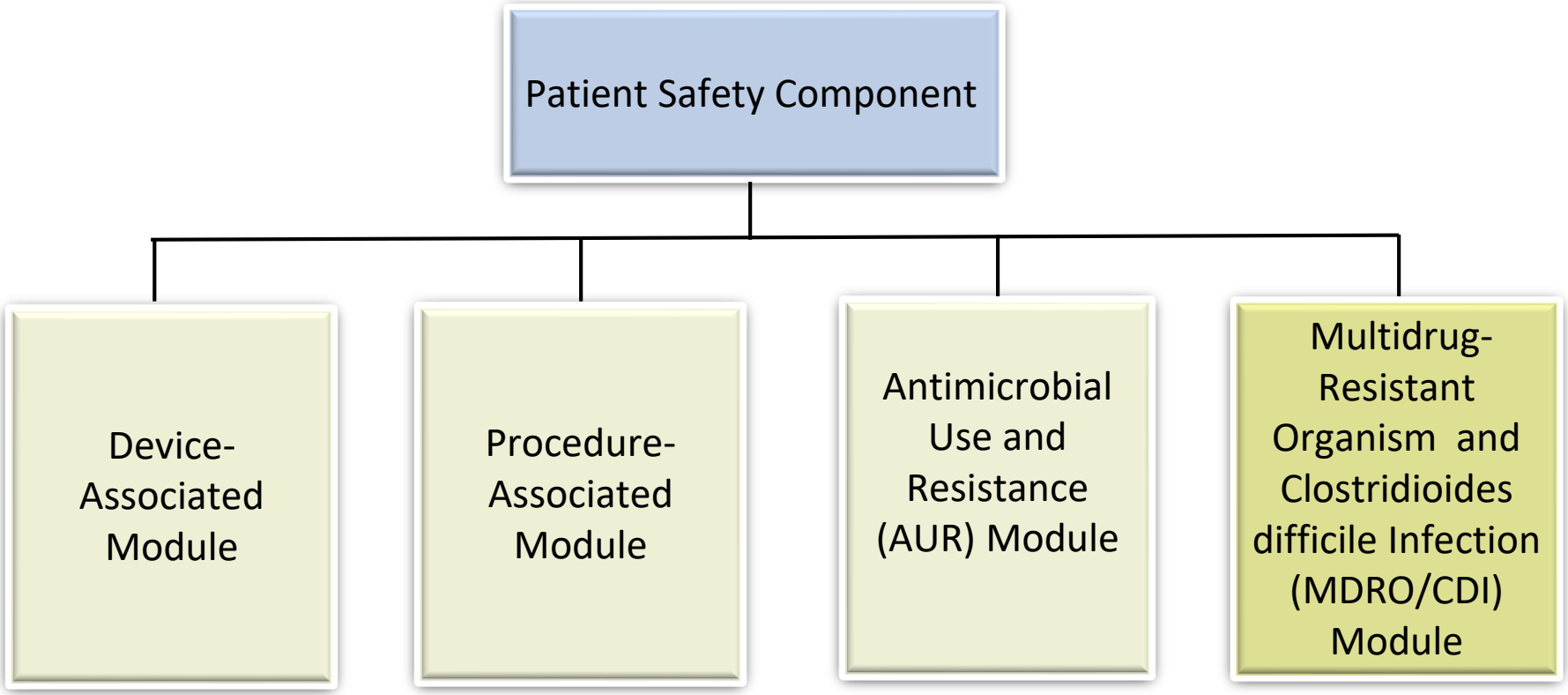
- **NHSN Background**
- **Reporting Requirements**
- **Summary (denominator data)**
- **LABID Event: MRSA (Methicillin-resistant *Staphylococcus aureus)***
- **LABID Event: CDI (Clostridioides difficile)**
- **Resources**

NHSN Background

National Healthcare Safety Network (NHSN)



National Healthcare Safety Network (NHSN)



Current CMS and Tennessee Reporting Requirements

TN MRSA Reporting Requirements

- **Acute Care Hospitals**
  - **Facility-wide Inpatient (FACWIDEIN)**
  - **Emergency Departments**
  - **24-hour Observation Locations**
  - **CMS-certified Inpatient Rehabilitation Facility Units within the hospital**
- **Long Term Acute Care Hospitals (LTACH)**
- **Inpatient Rehabilitation Facility (Freestanding)**
  - **Facility-wide Inpatient (FACWIDEIN)**

TN CDI Reporting Requirements

- **Acute Care Hospitals**
  - **Facility-wide Inpatient (FACWIDEIN)**
    - **Excluding neonatal intensive care units, well baby nurseries and well baby clinics)**
  - **Emergency Departments**
  - **24-hour Observation Locations**
  - **CMS-certified Inpatient Rehabilitation Facility Units within the hospital**

- **Long Term Acute Care Hospitals (LTACH)**
- **Inpatient Rehabilitation Facility (Freestanding)**
  - **Facility-wide Inpatient (FACWIDEIN)**

2021 Changes

2021MDRO & CDI Additions

- **CRE definition updated to include:**
  - **Any Escherichia Coli, Klebsiella oxytoca, Klebsiella pneumoniae, Klebsiella aerogenes or Enterobacter spp. testing resistant to imipenem, meropenem, doripenem, ertapenem, meropenem/vaborbactam, or imipenem/relebactam by standard susceptibility testing methods.**

- **MDR-Acinetobacter definition updated to include new eligible drugs:**
  - **Piperacillin/tazobactam, Cefoxitin, Ceftriaxone**

2021 MDRO & CDI Clarifications

- **All “>” and “<“ signs have been changed into words [greater than/less than].**

- **Additional data quality soft alerts (warning messages) have been added to the FACWIDEIN denominator screen when improbable denominators have been entered.**

- **Starting in 2021, the FACWIDEIN denominator screen for long-term acute care hospitals (LTACHs) and inpatient rehabilitation facilities (IRFs) will include a question about the presence of any rehab and/or psych locations in the facility.**

2021 MDRO & CDI Deletions

- **Removed Piperacillin alone as an eligible B-lactam for MDR-Acinetobacter.**

Creating a Monthly Reporting Plan

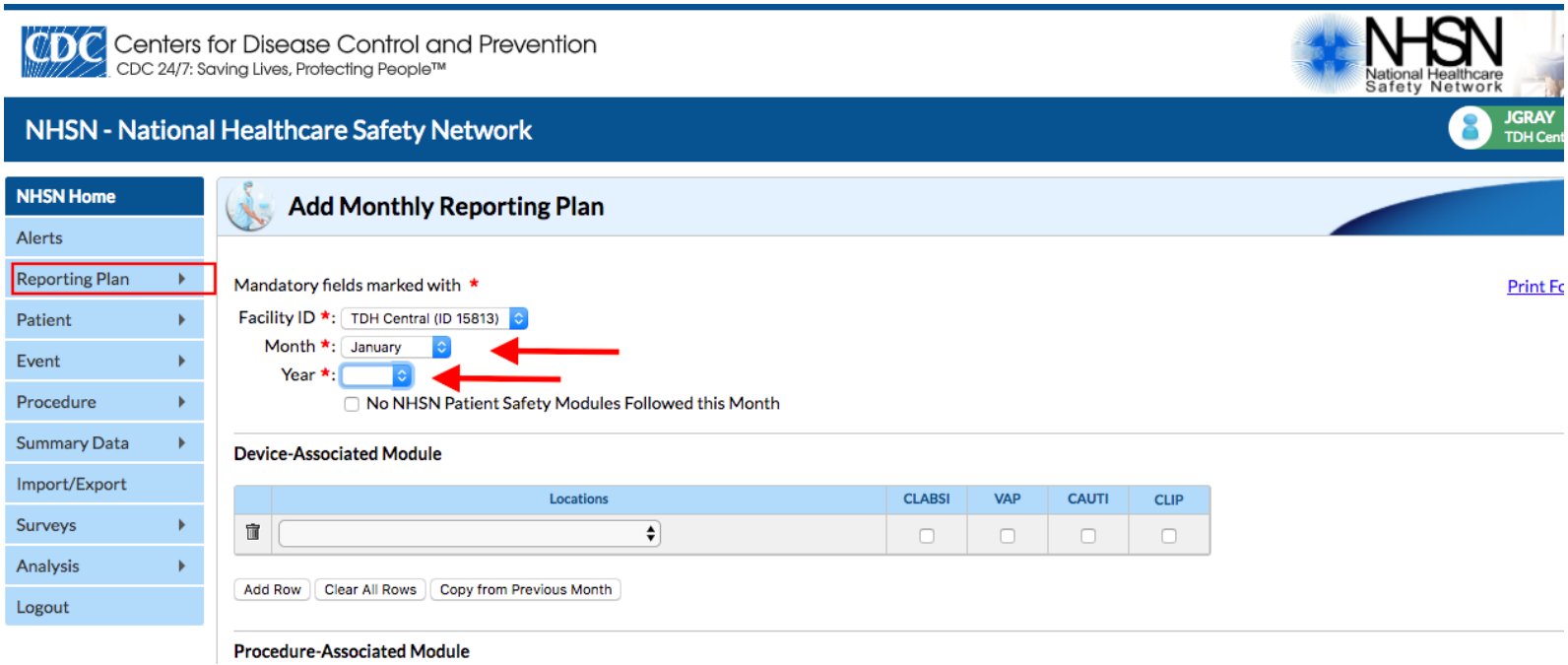
Monthly Reporting Plan

- **Allows NHSN and TDH to know on which indicators and in what locations you are performing surveillance**
- **It is also used for internal business rules and validation**

CDC will not send data to CMS unless the data are listed in your monthly plan!

Submit Monthly Reporting Plan

- **In the blue navigation bar, click “Reporting Plan”, then “Add”**
- **Choose month and year first**



Plan – Acute Care Hospitals

- ***C. difficile*** **– LabID Event All Specimens**
  - **Facility-wide Inpatient (FACWIDEIN)**
  - **Emergency Department(s)**
  - **24-Hr Observation Locations**
  - **Inpatient rehabilitation facility (IRF) locations**

- **MRSA – LabID Event Blood Specimens Only**
  - **Facility-wide Inpatient (FACWIDEIN)**
  - **Emergency Department(s)**
  - **24-Hr Observation Locations**
  - **Inpatient rehabilitation facility (IRF) locations**

Plan – MDRO/CDI Module, CDI

Multi-Drug Resistant Organism Module HELP

Locations	Specific Organism Type
FACWIDEIN - Facility-wide Inpatient (FacWIDEIn)	CDIF - C. difficile

Process and Outcome Measures

Infection Surveillance	AST-Timing	AST-Eligible	Incidence	Prevalence	Lab ID Event All Specimens	Lab ID Event Blood Specimens Only	HH	GG
					X			

Locations	Specific Organism Type
ED - EMERGENCY DEPARTMENT	CDIF - C. difficile

Process and Outcome Measures

Infection Surveillance	AST-Timing	AST-Eligible	Incidence	Prevalence	Lab ID Event All Specimens	Lab ID Event Blood Specimens Only	HH	GG
					X			

Locations	Specific Organism Type
OBS - 24-HR OBSERVATION	CDIF - C. difficile

Process and Outcome Measures

Infection Surveillance	AST-Timing	AST-Eligible	Incidence	Prevalence	Lab ID Event All Specimens	Lab ID Event Blood Specimens Only	HH	GG
					X			

Plan – MDRO/CDI Module, MRSA

FACWIDEIN - Facility-wide Inpatient (FacWIDEIn)	MRSA - MRSA

Process and Outcome Measures

Infection Surveillance	AST-Timing	AST-Eligible	Incidence	Prevalence	Lab ID Event All Specimens	Lab ID Event Blood Specimens Only	HH	GG
						X		

ED - EMERGENCY DEPARTMENT	MRSA - MRSA

Process and Outcome Measures

Infection Surveillance	AST-Timing	AST-Eligible	Incidence	Prevalence	Lab ID Event All Specimens	Lab ID Event Blood Specimens Only	HH	GG
						X		

OBS - 24-HR OBSERVATION	MRSA - MRSA

Process and Outcome Measures

Infection Surveillance	AST-Timing	AST-Eligible	Incidence	Prevalence	Lab ID Event All Specimens	Lab ID Event Blood Specimens Only	HH	GG
						X		

Plan-LTACs & Free-Standing IRFs

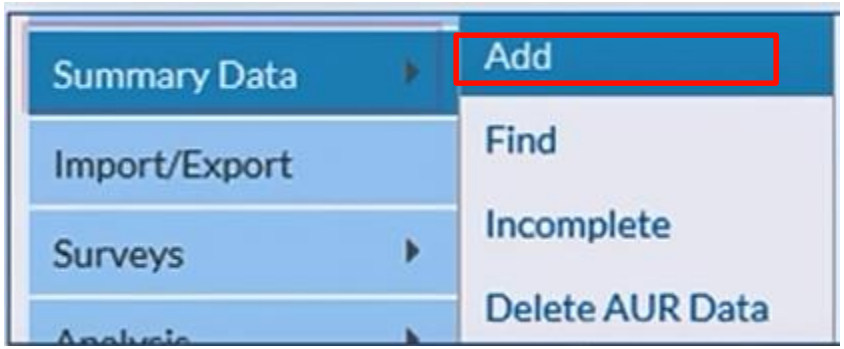
- ***C. difficile*** **– LabID Event All Specimens**
  - **Facility-wide Inpatient (FACWIDEIN)**

- **MRSA – LabID Event Blood Specimens Only**
  - **Facility-wide Inpatient (FACWIDEIN)**

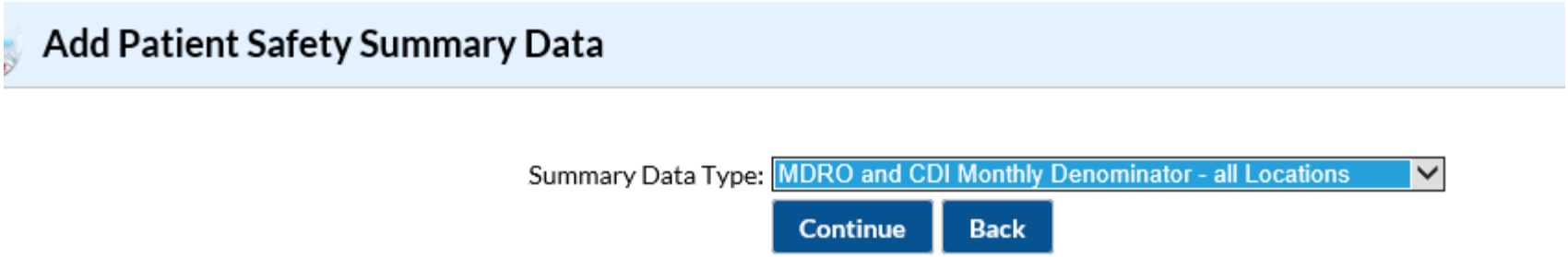
MRSA and CDI Summary Data (Denominators)

Facility – wide Inpatient Summary Data

- **Navigate to the form**

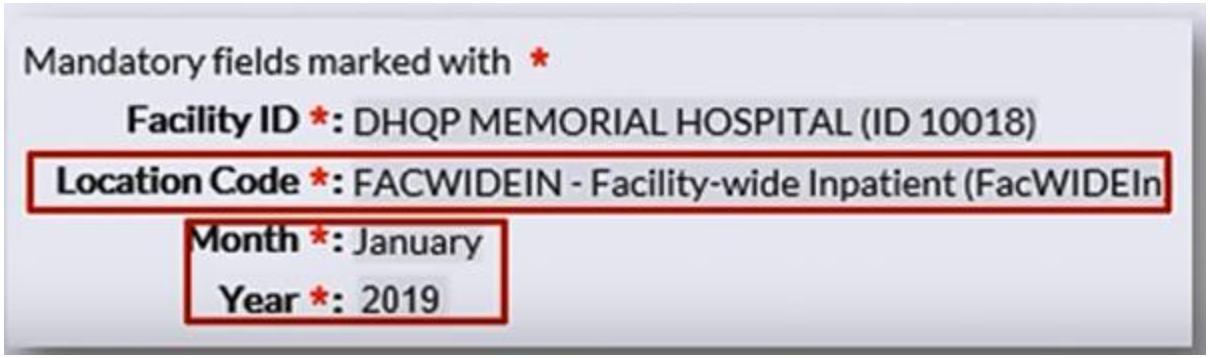


- **Select**

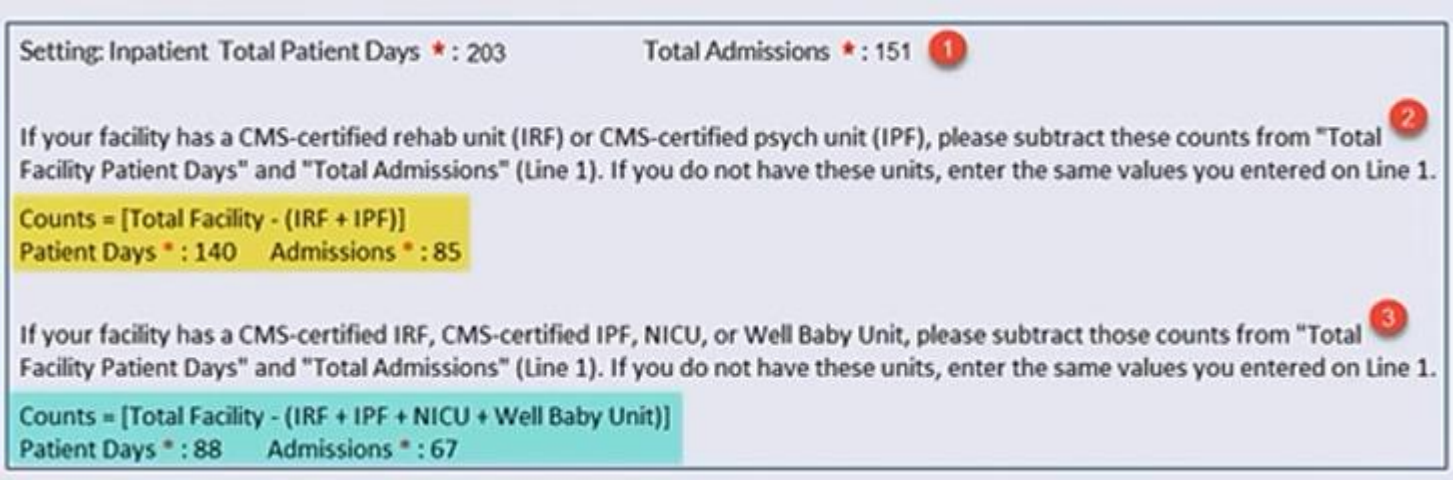


Facility-wide Inpatient Summary Data

- **Select Correct Location Code, Month, and Year**

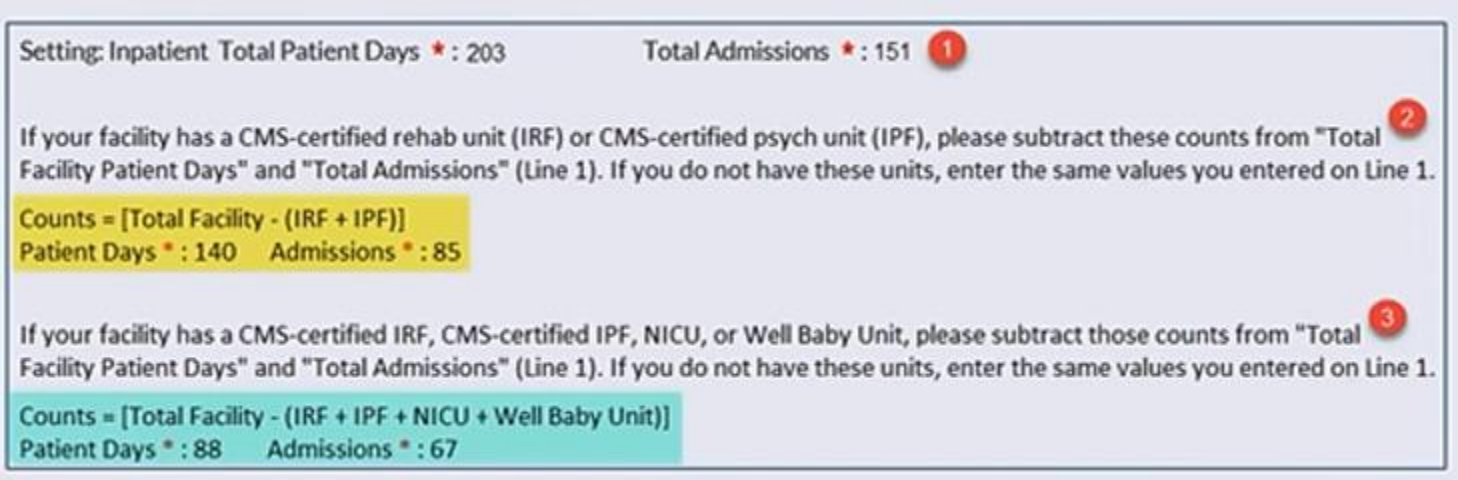


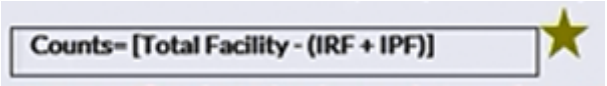
Facility-wide Inpatient Summary Data



- **Row 1: Counts from all inpatient locations in the facility**
  - **Exclude outpatient location totals from these fields**

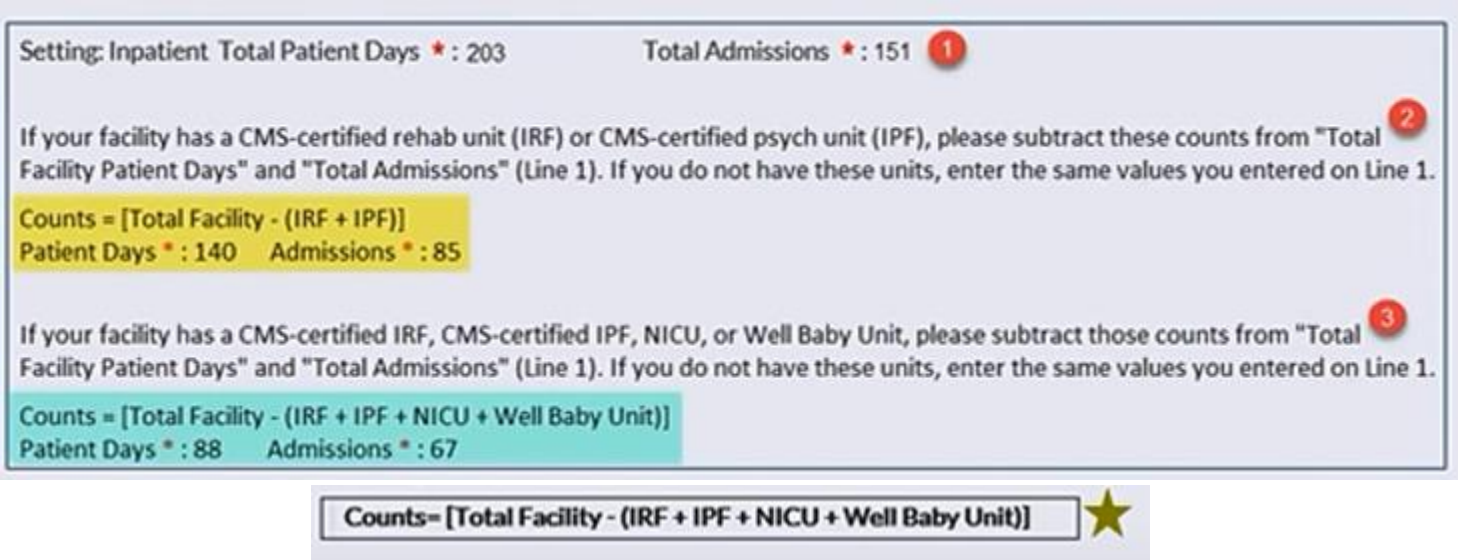
Facility-Wide Inpatient Summary Data





- **Row 2: Counts from all inpatient locations in the facility, with the subtraction of CMS-certified Rehab (IRF) and Psych (IPF) units**
  - **Totals from CMS-Certified Rehab and Psych units are subtracted from the totals found on row 1, and new totals are entered in row 2**

Facility-wide Inpatient Summary Data

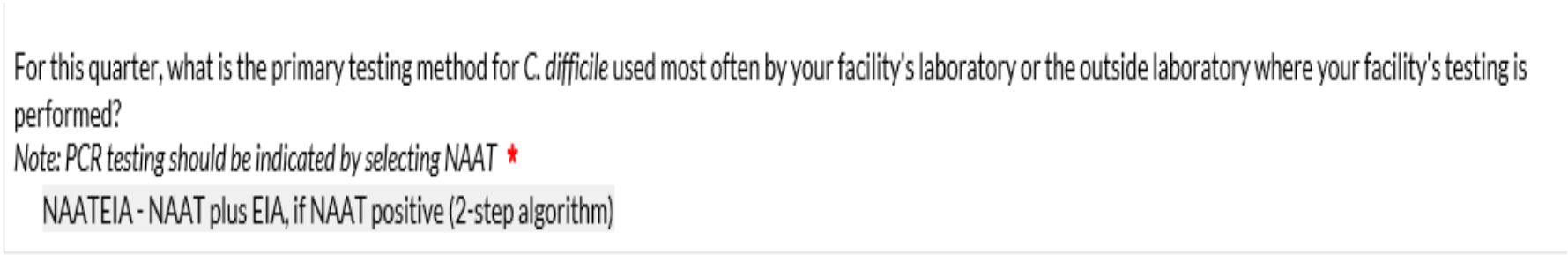


- **Row 3: Counts from all inpatient locations in the facility except CMS-certified Rehab (IRF) and Psych (IPF) units, NICUs, and Well Baby units**
  - **Totals from CMS-certified Rehab and Psych units, NICUs, and Well-Baby units are subtracted from totals found on row 1 and new totals entered on row 3**

Facility-wide Inpatient Summary Data

Primary CDI Test Method

- **Indicated on the FacWideIN denominator record for the third month of each quarter-select the test used >50% time**
  - **March (Q1), June (Q2), September (Q3), December (Q4)**


For this quarter, what is the primary testing method for *C. difficile* used most often by your facility's laboratory or the outside laboratory where your facility's testing is performed?
Note: PCR testing should be indicated by selecting NAAT *

NAATEIA - NAAT plus EIA, if NAAT positive (2-step algorithm)

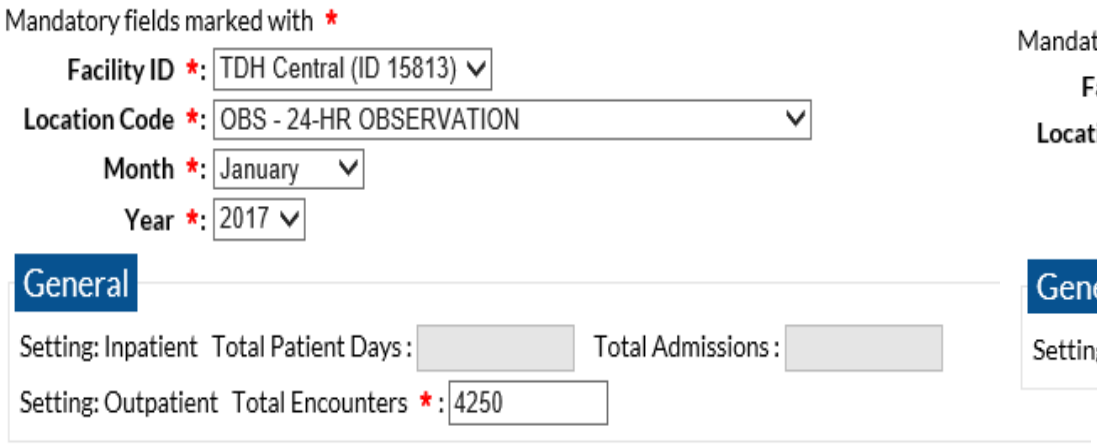
Determining Patient Days: Observation vs Inpatients

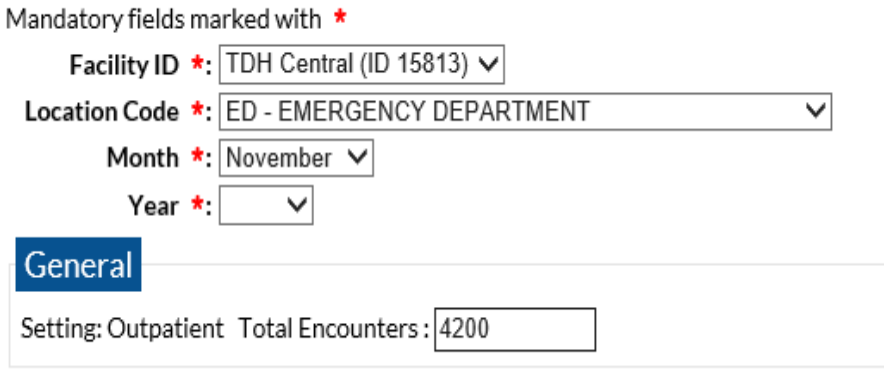
- **Observation patients in <u>observation locations</u>**
  - **An observation location (e.g., 24-hour observation area) is considered an outpatient unit, so time spent in this type of unit does not contribute to any inpatient counts (i.e., patient days, device days, admissions). Admissions to such outpatient units represent "encounters" and are reported for the observation location.**

- **Observation patients in <u>inpatient locations</u>**
  - **An observation patient housed in an inpatient location should be included in any appropriate patient or device day counts for that inpatient location.**

Emergency Department/Observation Locations Summary Data

- **Total number of encounters each month**
  - **No exclusions by age (include infants)**





  - **FacWideOut, Emergency Department, Dedicated observation units and other outpatient units, monthly denominator data are reported as encounters**

MDRO and CDI Monthly Denominator Form

Location Code *: ER - EMERGENCY DEPARTMENT
Month *: October
Year *: 2019

General

Setting: Outpatient Total Encounters * : 4229

Organism Selection/Confirmation of No Events

Specific Organism Type	MRSA	Report No Events	CDIF	Report No Events	CephR-Kleb	Report No Events	CRE-Ecoli	Report No Events
Infection Surveillance	☐	☐	☐	☐	☐	☐	☐	☐
LabID Event (All specimens)	☐	☐	* ☑	☑	☐	☐	☐	☐
LabID Event (Blood specimens only)	* ☑	☑			☐	☐	☐	☐

The boxes for MRSA and CDI will be checked if you have correctly completed the monthly reporting plan. Check "Report No Events" boxes if you have no LabID events for the month.

NHSN LabID Event Definitions

MRSA Definition

- **Methicillin-resistant *Staphylococcus aureus***
  - **Includes *S.aureus* cultured from any specimen that tests oxacillin-resistant, cefoxitin-resistant, or methicillin-resistant by standard susceptibility testing methods, or any laboratory finding of MRSA (includes but not limited to PCR or other molecular based detection methods).**

CDI Definition

- **<u>CDI-positive laboratory assay:</u>**
  - **A positive laboratory test result for *C. difficile* toxin A and/or B, (includes molecular assays [PCR] and/or toxin assays) tested on an unformed stool specimen (specifically, conforming to the shape of the container)**

  OR

  - **A toxin-producing *C. difficile* organism detected by culture or other laboratory means performed on an unformed stool sample (must conform to container)**

CDI Multi-Step Testing

Examples of Multi-step Testing Interpretations (does not consider prior positives):

Multi-step Testing Same Specimen	Testing Step	Testing Method	Documented Findings	Eligible LabID Event?
Example A	Test 1	NAAT	Negative	**Yes**
	Test 2	GDH	Positive	
Last test →	Test 3	EIA	**Positive**	
Example B	Test 1	NAAT	Positive	No
	Test 2	GDH	Positive	
Last test →	Test 3	EIA	Negative	
Example C	Test 1	GDH	Positive	**Yes**
	Test 2	EIA	Negative	
Last test →	Test 3	NAAT	**Positive**	
Example D	Test 1	GDH	Positive	No
	Test 2	EIA	Positive	
Last test →	Test 3	NAAT	Negative	

Reminders!

- **Specimens collected in ED or 24-hour observation location(s) are only entered into NHSN once, assigned to the outpatient (ED/observation) location**

- **NOTE: Specimens collected from other affiliated outpatient locations should still be reported to an inpatient location, if collected on the same calendar day as inpatient admission**

LabID Event Categorization

- **Community –Onset (CO):**
  - **collected in an outpatient location in which the patient was not previously discharged from an inpatient location within the same facility less than or equal to 28 days prior to current date of specimen collection**
  - **Collected in an inpatient location less than or equal to 3 days after admission to the facility (specifically, days 1, 2, or 3 of admission.**

Sun	Mon	Tues	Wed	Thu	Fri	Sat
27	28	29	30	31	1	2
3 (adm)	4	5 (+ CDI)	6	7	8	9

LabID Event Categorization

- **<u>Healthcare Facility –Onset (HO)</u>:**
  - **LabID Event specimen collected greater than 3 days after admission to the facility (specifically, on or after day 4).**

Sun	Mon	Tues	Wed	Thu	Fri	Sat
27	28	29	30	31	1	2
3 (adm)	4	5	6	7	8 (+ CDI)	9
10	11	12	13	14	15	16

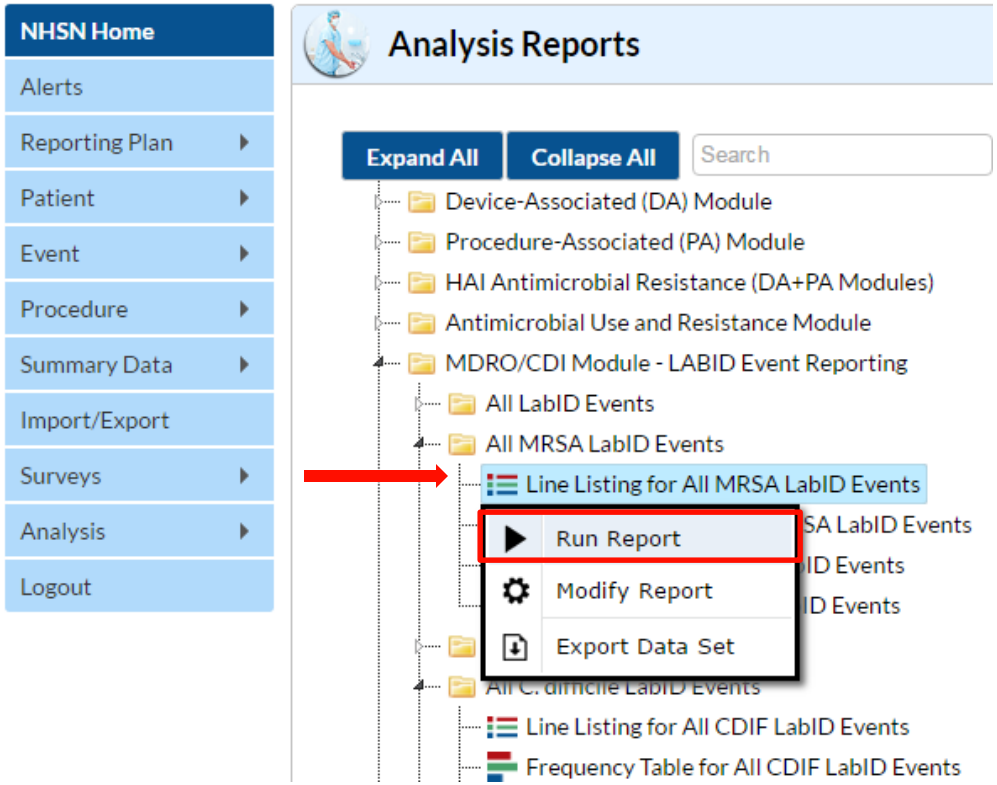
CDI LabID Event Categorization

- **Community-Onset Healthcare Facility-Associated (CO-HCFA):**
  - **CO LabID Event collected from an inpatient or an outpatient location from a patient who was discharged from the facility less than or equal to 28 days prior to current date of stool specimen collection.**
  - **The previous discharge must have been from an inpatient location with the same facility (in other words, an outpatient visit does not qualify as "admitted", and therefore is not used to set the timeline for CO-HCFA).**

When reporting to NHSN, you DO NOT have to calculate this! *NHSN will do it for you!*

LabID Analysis

- Under the analysis tab - Line lists can help you determine which LabID events will be included in your SIR



LabID Analysis SIR Determination

- Line Listing of all MRSA LabID Events
  - The variable FWMRSA_bldincCount tells you whether the event will be included in your SIR

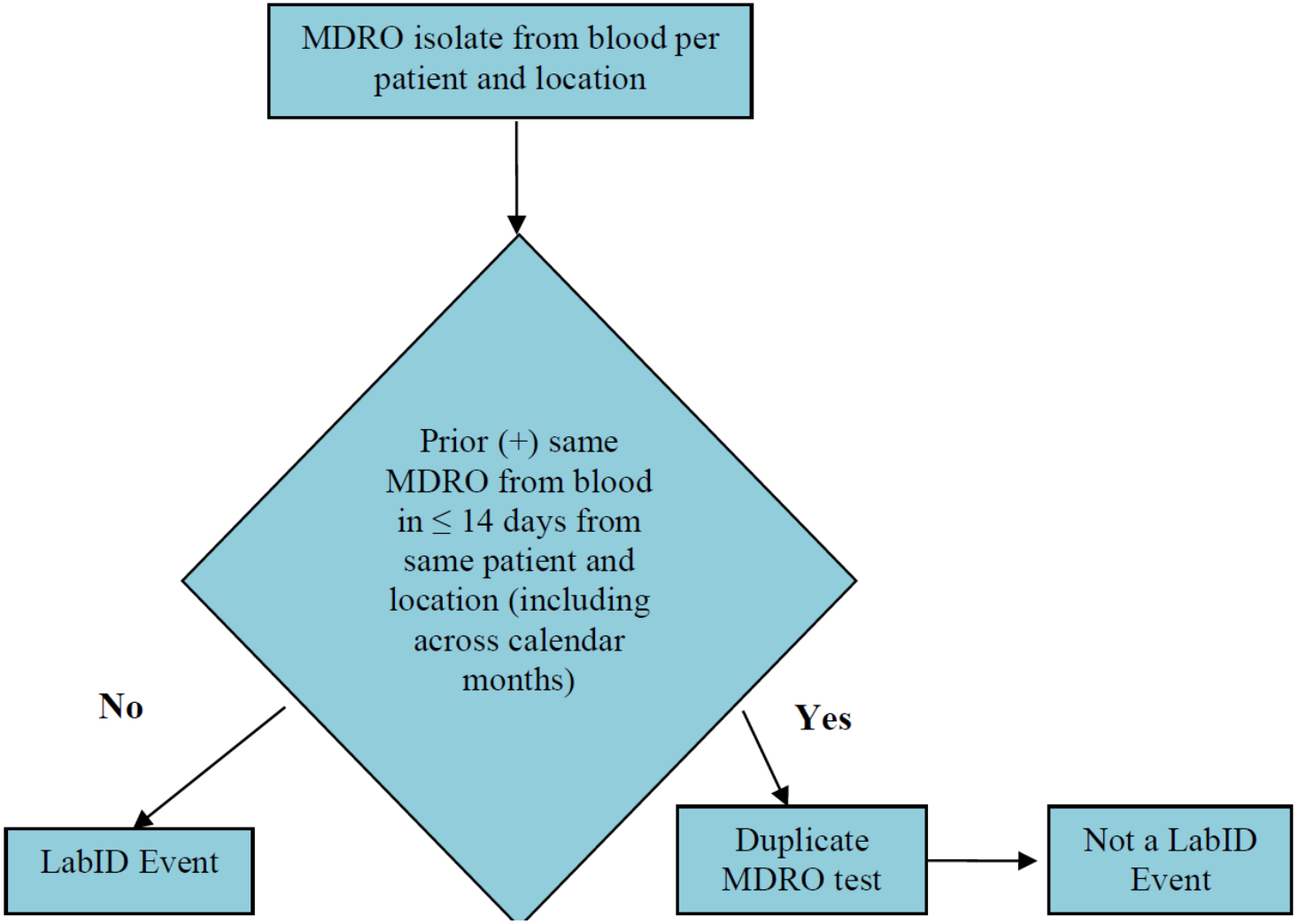
patID	eventID	spcOrg Type	location	outpatient	prevPos	onset	admitDate	locationAdmitDate	specimenSource	specimenDate	FWMRSA_admPrevBldCount	FWMRSA_bldIncCount
1C10013231	42844747	MRSA	5S MED ONC	N	N	HO	05/30/2020	05/30/2020	BLDSPC	06/03/2020	0	1
1C11845928	43426755	MRSA	ED	Y	N	CO	.	.	BLDSPC	08/08/2020	0	0
1C11845928	43426756	MRSA	5N SURG	N	Y	HO	08/09/2020	09/04/2020	BLDSPC	09/12/2020	0	1
1C11845928	43426757	MRSA	I03	N	N	CO	08/09/2020	08/09/2020	BLDSPC	08/09/2020	0	0

LabID Event: MRSA Blood Specimens

MRSA Bacteremia LabID Event Definitions

- **Non-duplicate, unique blood source**
  - **MRSA isolate from blood in a patient with no prior positive blood culture for the same MDRO and location in less than or equal to 14 days, even across calendar months and different facility admissions.**

Identifying a MRSA Bacteremia LabID Event



Knowledge Check!

- **2/1 Bob is transferred from a LTAC facility to Hospital A with a fever of 101.5 and an altered mental status. A blood specimen was drawn on his arrival to the ED.**

- **2/2 Bob has been admitted to 4 South and his blood culture has come back positive for MRSA.**

Knowledge Check!

- **Can Bob's positive MRSA Lab Result be entered as a LabID event and if so, What location should we attribute it to?**

a. **No, Since the specimen was Drawn in the ED**
b. **Yes, Location= ED since the specimen was collected there**
c. **No, Bob doesn't meet the criteria for LabID**
d. **Yes, Location = 4 South since that's where Bob is located**

Knowledge Check!

- **Can Bob's positive MRSA Lab Result be entered as a LabID event and if so, What location should we attribute it to?**

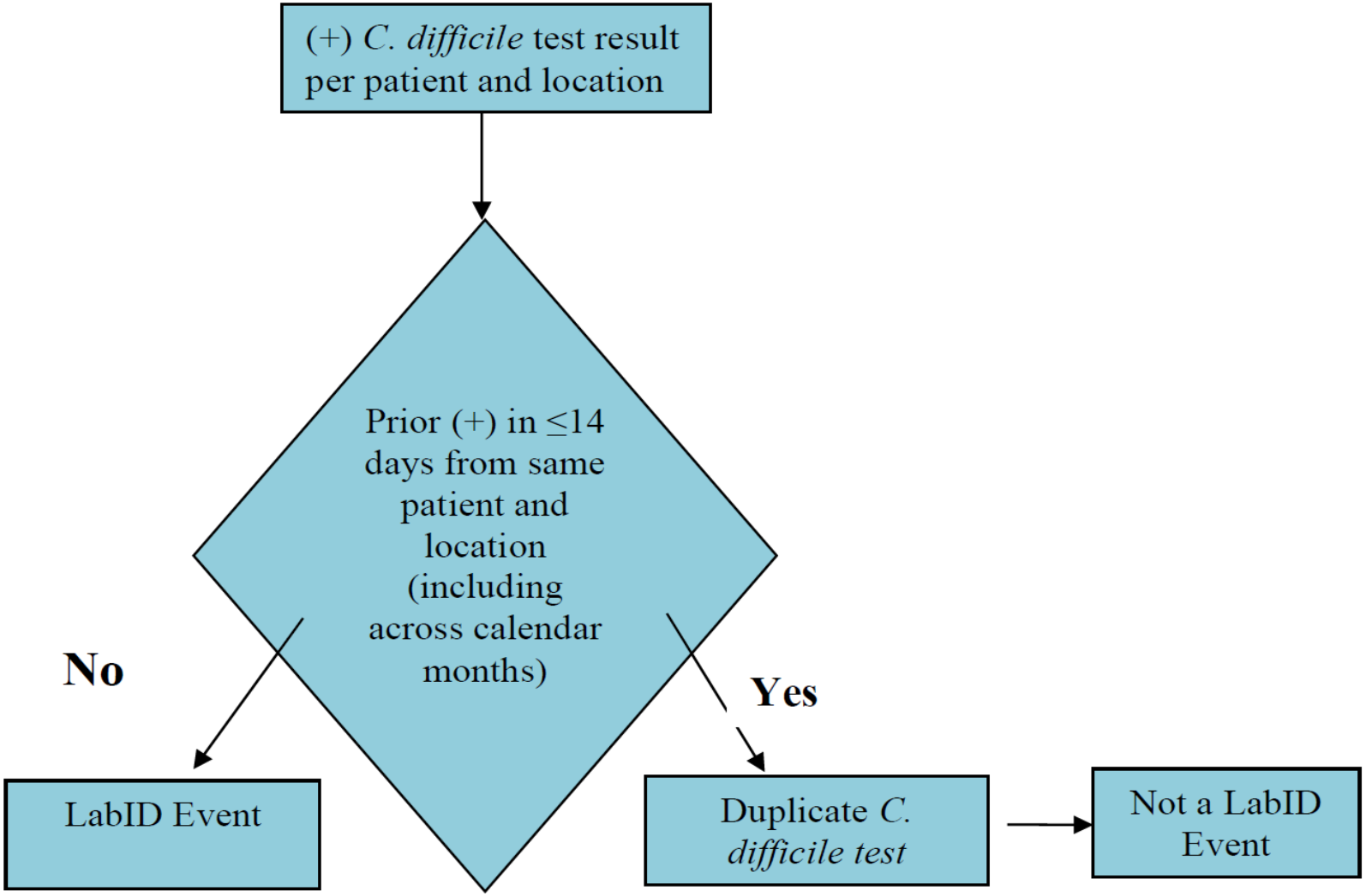
a. **No, Since the specimen was Drawn in the ED**
b. **Yes, Location= ED since the specimen was collected there**
c. **No, Bob doesn't meet the criteria for LabID**
d. **Yes, Location = 4 South since that's where Bob is located**

LabID Event: CDI

CDI LabID Event Definition

- **Non-duplicate, *C. difficile* toxin-positive lab result**
  - **Any *C. difficile* lab result with no prior positive in the prior 14 days (even across calendar months) for this patient in this particular location.**
    - **Day of specimen collection is Day 1**
    - **Tests should only be performed on unformed stool**
      - **Stool that takes the shape of its container**

Identifying a CDI LabID Event



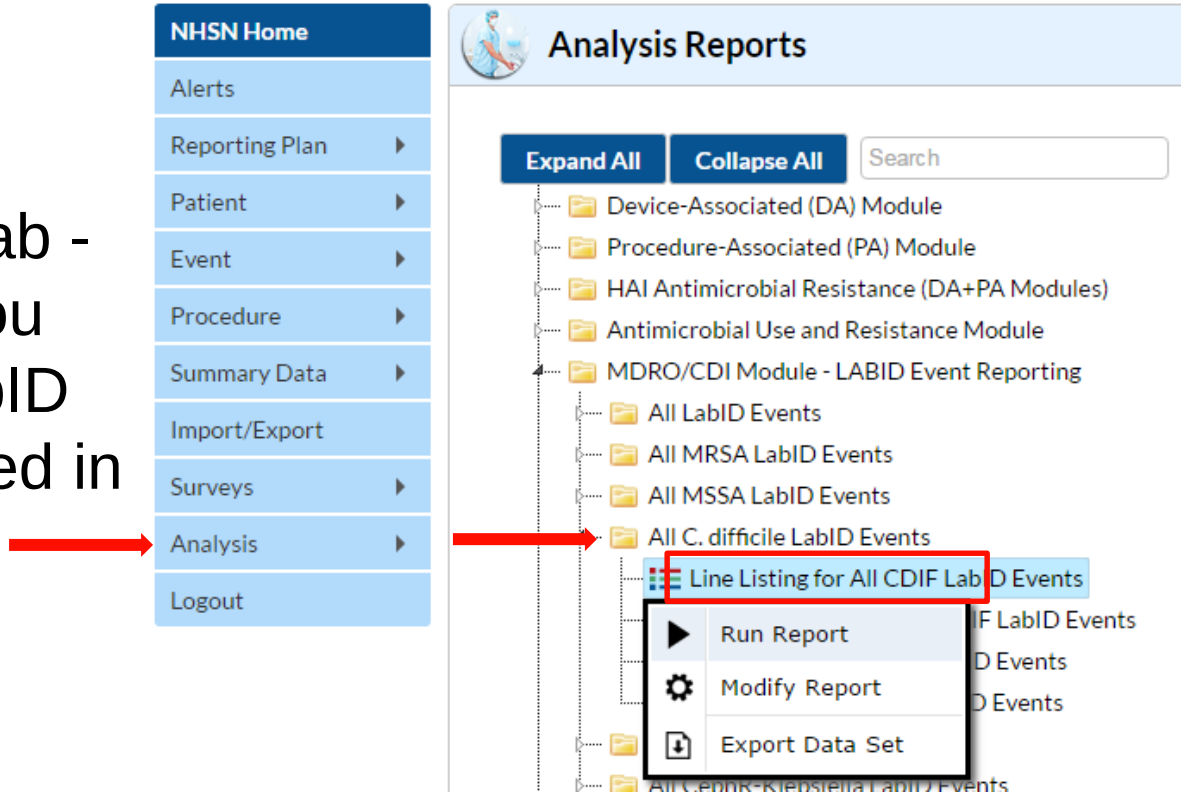
Incident vs. Recurrent

- **<u>Incident CDI</u> LabID Event: a specimen obtained more than 56 days after the most recent CDI LabID Event (or with no previous CDI LabID Event documented) for that patient.**
- **<u>Recurrent CDI</u> LabID Event: a specimen obtained more than 14 days and and less than or equal to 56 days after the most recent CDI LabID Event for that patient.**

When reporting to NHSN, you <u>DO NOT</u> have to calculate this! *<u>NHSN will do it for you!</u>*

LabID Analysis

- Under the analysis tab - Line lists can help you determine which LabID events will be included in your SIR



Lab Analysis SIR Determination

- Line Listing of all CDIF LabID Events
  - The variable FWCDIF_IncHOCount tells you whether the event will be included in your SIR

patID	eventID	spcOrgType	location	outpatient	prevPos	onset	cdiAssay	admitDate	locationAdmitDate	specimenSource	specimenDate	FWCDIF_facIncHOCount	FWCDIF_admPrevCOCount
1C10055063	43426036	CDIF	5N SURG	N	N	CO	Incident	08/22/2020	08/22/2020	STOOL	08/23/2020	0	1
1C10099892	42844776	CDIF	3W ICUSD	N	N	CO-HCFA	Incident	07/02/2020	07/02/2020	STOOL	07/02/2020	0	0
1C10119335	43426042	CDIF	I01	N	N	CO-HCFA	Incident	09/28/2020	09/28/2020	STOOL	09/29/2020	0	0
1C10149393	44277201	CDIF	ED	Y	N	CO-HCFA	Incident	.	.	STOOL	10/12/2020	0	0
1C10249643	42844761	CDIF	5N SURG	N	N	CO	Incident	06/19/2020	06/19/2020	STOOL	06/20/2020	0	1
1C10256861	44278094	CDIF	3S MS	N	N	HO	Incident	10/04/2020	10/04/2020	STOOL	10/19/2020	1	0
1C10555870	42844775	CDIF	ED	Y	N	CO	Incident	.	.	STOOL	06/16/2020	0	1

LabID Event Calculator

- **LabID event calculator available through the NHSN website to help with data entry decision making around the 14-day rule**

http://www.cdc.gov/nhsn/labid-calculator/index.html

Knowledge Check 2!

- **2/7 – Lilly was admitted to hospital A's ICU, 2 West**
- **2/10 – She was transferred to 4 South a medical ward and complained of abdominal pain.**
- **2/11 – She began having loose stools and a stool specimen was collected.**
- **2/12 – Lilly's specimen came back positive for *C. difficile*. She was still located on 4 South at the time of the result**

Knowledge Check 2!

- **Can Lilly's positive CDI Lab Result be entered as a LabID event and if so, What location should we attribute it to?**

a. **Yes, Location= 2 West**
b. **No, Lilly doesn't meet LabID event criteria**
c. **Yes, Location = 4 South since that's where the specimen was collected**

Knowledge Check 2!

- **Can Lilly's positive CDI Lab Result be entered as a LabID event and if so, What location should we attribute it to?**

a. **Yes, Location= 2 West**
b. **No, Lilly doesn't meet LabID event criteria**
c. **Yes, Location = 4 South since that's where the specimen was collected**

Knowledge Check 3!

- **12/1: Susie is admitted to an inpatient rehab unit (it has its own unique CCN) within an acute care hospital.**

- **12/8: Discharged from the IRF unit and admitted to a medical ward where a blood culture is drawn which later tests positive for MRSA.**

Knowledge Check 3!

- **What is the date of admission when submitting the LabID event?**
  - **12/1**
  - **12/8**
- **What unit is the event attributed to?**
  - **IRF Unit**
  - **Medical Ward**

Knowledge Check 3!

- **What is the date of admission when submitting the LabID event?**
  - **12/1 (hospitalization is considered "continuous, having a unique CCN doesn't influence or change this perspective).**
  - **12/8**

- **What unit is the event attributed to?**
  - **IRF Unit**
  - **Medical Ward**

NHSN MRSA/CDI Training

User Question:

- **Hey NHSN:**

I work at an acute care hospital that follows LabID event reporting. I have a patient admitted to my inpatient psych unit on 12/1 (it has its own unique CCN). The patient is discharged on 12/8 & admitted to a medical ward where they subsequently have a LabID event. How is this admission handled?

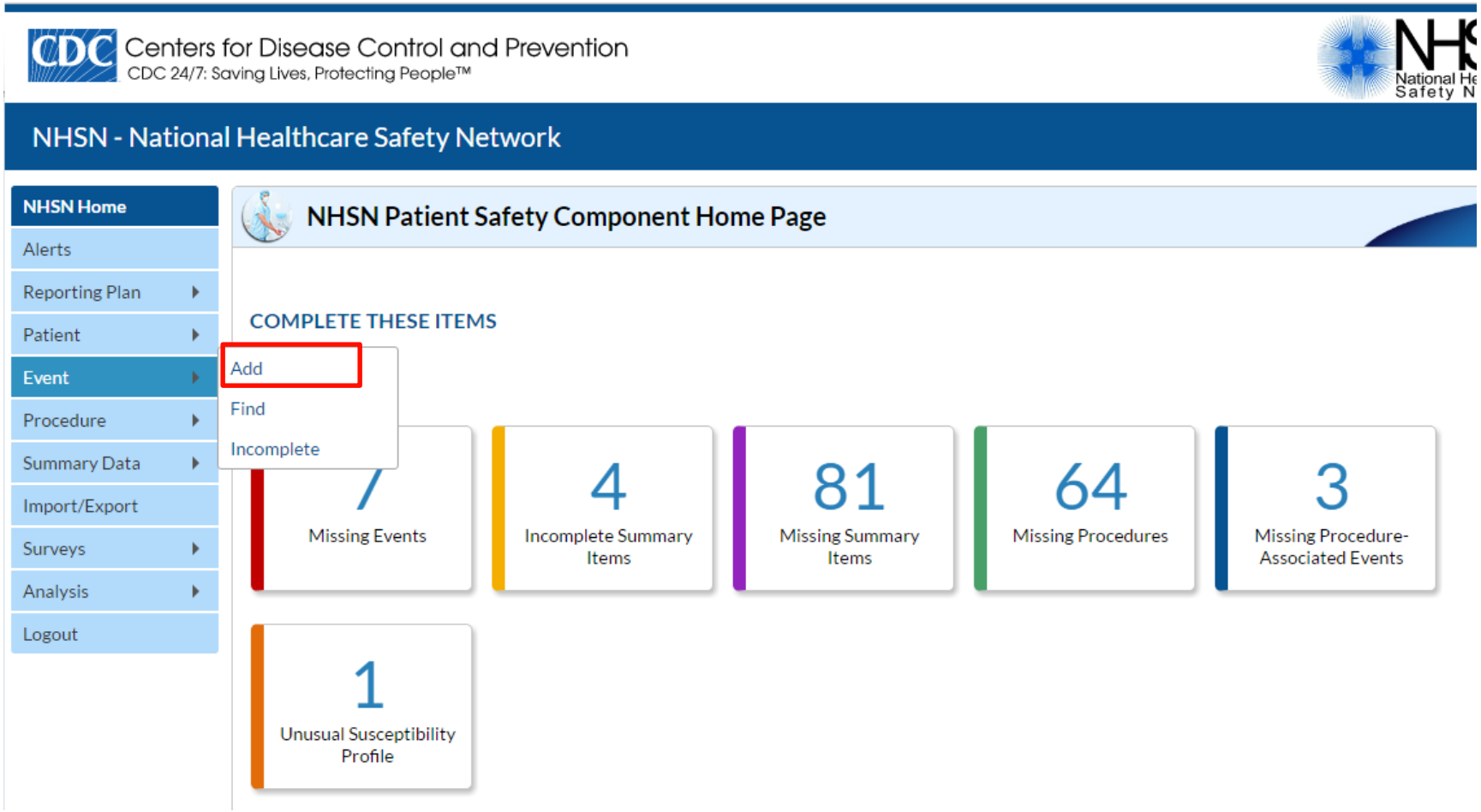
- **Response:**

From the NHSN perspective, the hospitalization is considered 'continuous'; this isn't a 'discharge' and 'readmission' for NHSN reporting purposes. If submitting a LabID event, the date of admission is 12/1. Having a unique CCN doesn't influence or change this perspective.

https://www.cdc.gov/nhsn/pdfs/training/2017/Leaptrot_March23.pdf

LabID Event Data Entry

Add a LabID Event



MRSA Blood Specimen

Event Information

Event Type *:	LABID - Laboratory-identified MDRO or CDI Event
Date Specimen Collected *:	12/17/2019
Specific Organism Type *:	MRSA - MRSA
Outpatient *:	N - No
Specimen Body Site/Source *:	CARD - Cardiovascular/ Circulatory/ Lymphatics
Specimen Source *:	BLDSPC - Blood specimen
Date Admitted to Facility *:	12/10/2019
Location *:	3WEST - 3WEST
Date Admitted to Location *:	12/17/2019
Has patient been discharged from your facility in the past 4 weeks? *:	Y - Yes
Date of last discharge from your facility *:	12/02/2019
Has the patient been discharged from another facility in the past 4 weeks?:	Y - Yes
If yes, from where (Check all that apply):	☐ Nursing Home/Skilled Nursing Facility ☑ Other Inpatient Healthcare Setting (i.e., acute care hospital, IRF, LTAC, etc.)
Documented evidence of previous infection or colonization with this specific organism type from a previously reported LabID Event in **any prior month**?:	Y - Yes

C.*Difficile* Specimen

Event Information

Event Type *: LABID - Laboratory-identified MDRO or CDI Event

Date Specimen Collected *: 12/17/2019

Specific Organism Type *: CDIF - C. difficile

Outpatient *: N - No

Specimen Body Site/Source *: DIGEST - Digestive System

Specimen Source *: STOOL - Stool specimen

Date Admitted to Facility *: 12/10/2019

Location *: 3WEST - 3WEST

Date Admitted to Location *: 12/17/2019

Has patient been discharged from your facility in the past 4 weeks? *: Y - Yes

Date of last discharge from your facility *: 12/02/2019

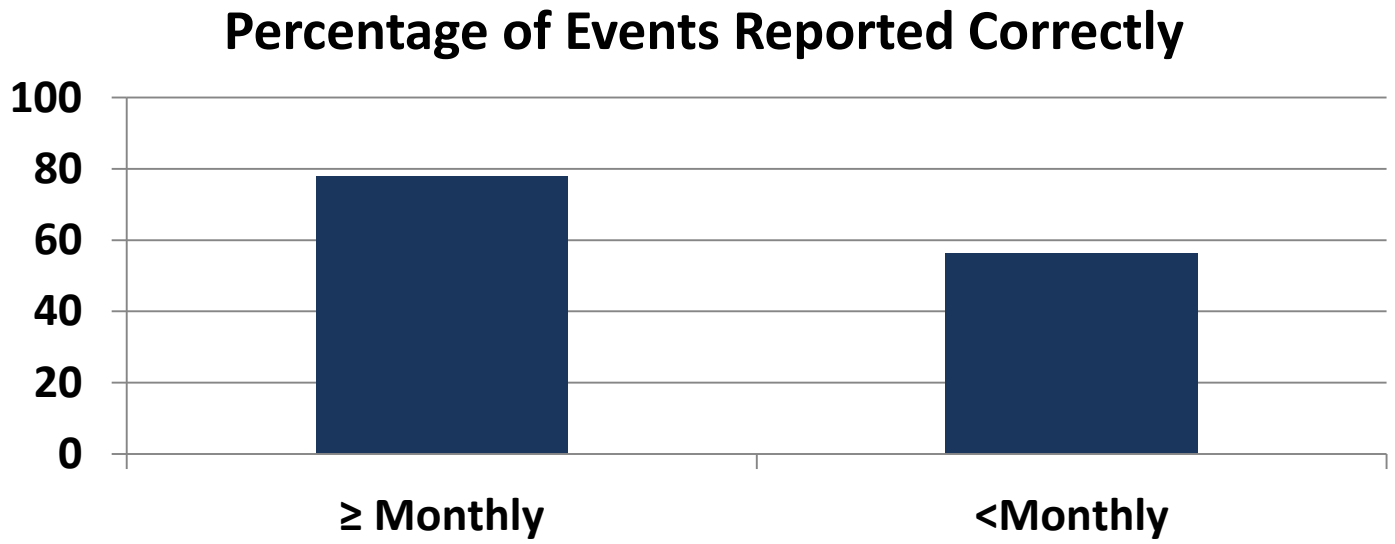
Has the patient been discharged from another facility in the past 4 weeks?: Y - Yes

If yes, from where (Check all that apply):
- [x] Nursing Home/Skilled Nursing Facility
- [ ] Other Inpatient Healthcare Setting (i.e., acute care hospital, IRF, LTAC, etc.)

Documented evidence of previous infection or colonization with this specific organism type from a previously reported LabID Event in **any prior month**?:

Clinical Decision Support Software

- If you use clinical decision support software (CDSS) it is best practice to compare your results monthly to a laboratory line list.
- As part of a validation conducted by TDH, facilities that verified their CDSS identified events, at least monthly, with a laboratory line list had significantly higher percentage of correctly reported events than facilities that validated less frequently or not at all.



Common Questions: LabID Event

Question 1

- **My facility is doing active surveillance testing (AST) and LabID Event reporting. If an MDRO is identified during AST is it also a LabID Event?**

- **<u>Answer</u>: *No, because a LabID Event is an MDRO isolate obtained for <u>clinical decision making</u>, not as part of routine surveillance.***

Question 2

- **I have a patient with a positive MRSA blood specimen early in the month. If he has another positive blood specimen one week later, on the same unit, do I enter a second LabID Event in NHSN?**

- **A<u>nswer</u>: *You <u>would not</u> report an additional positive blood specimen that was obtained the following week (14-day rule) .***

Question 3

- **If I have a patient with a positive MRSA blood specimen late in the month and the following month he has another positive blood specimen, do I enter the second specimen as a LabID Event in NHSN?**

- **<u>Answer</u>:** ***You need to apply the 14-day rule to determine if the specimen meets the LabID event definition. Remember that the 14-day rule crosses months.***

Question 4

- **A MRSA-positive blood culture was obtained in the ED and then admitted to an inpatient unit on the same day. How do I report this LabID event?**

- **<u>Answer</u>: *Report this MRSA blood specimen as a LabID Event for the ED.***

- **If the patient had went to an affiliated outpatient clinic, how would it have been reported?**

- **<u>Answer:</u> It would have been reported for the inpatient location.**

Question 5

- **A MRSA-positive blood culture was obtained while patient was in dedicated observation unit and then was admitted as inpatient the same day. How do I report this LabID event?**

- **<u>Answer</u>: *Report this MRSA blood specimen as a LabID Event for the dedicated observation unit.***

- **An observation patient is placed on an inpatient unit. MRSA + blood cultures are collected. How do I report this LabID event?**

- **<u>Answer:</u> It would have been reported for the inpatient location.**

Case Studies

Case Study 1

- **Each time a patient gets a septic work up, blood cultures may be taken and sent to the laboratory.**
- **Part of Betty's job is to review a line list of MRSA-positive cultures on a regular basis. The following slide shows an example of the spreadsheet she might review.**
- **To easily identify LabID events, the spreadsheet should be sorted by a unique patient identifier (e.g., MRN) and then by date of specimen collection.**

All Clinical MRSA Cultures

MRN	Last Name	First Name	DOB	Date Admitted to Facility	Date Admitted to Unit	Unit	Specimen Type	Date of Specimen Collection	Organism
14567	Smith	John	12/15/1937	11/15/2019	12/7/2019	1 MICU	Blood Culture	12/15/2019	MRSA
895643	Hopkins	Dave	12/12/1940	11/17/2019	12/5/2019	1 MICU	Blood Culture	12/5/2019	MRSA
895643	Hopkins	Dave	12/12/1940	11/17/2019	12/5/2019	1 MICU	Blood Culture	12/11/2019	MRSA
895643	Hopkins	Dave	12/12/1940	11/17/2019	12/5/2019	1 MICU	Blood Culture	12/12/2019	MRSA
895643	Hopkins	Dave	12/12/1940	11/17/2019	12/5/2019	1 MICU	Blood Culture	12/18/2019	MRSA
895643	Hopkins	Dave	12/12/1940	11/17/2019	12/5/2019	1 MICU	Blood Culture	12/21/2019	MRSA
895643	Hopkins	Dave	12/12/1940	11/17/2019	12/5/2019	1 MICU	Blood Culture	12/25/2019	MRSA
895643	Hopkins	Dave	12/12/1940	11/17/2019	12/5/2019	1 MICU	Blood Culture	12/27/2019	MRSA
987654	Dowell	Jane	11/12/1967	11/21/2019	11/21/2019	1 MICU	Sputum	12/12/2019	MRSA
987654	Dowell	Jane	11/12/1967	11/21/2019	11/21/2019	1 MICU	Pleural Fluid	12/5/2019	MRSA
987654	Dowell	Jane	11/12/1967	11/21/2019	11/21/2019	1 MICU	Blood Culture	12/6/2019	MRSA
987654	Dowell	Jane	11/12/1967	11/21/2019	11/21/2019	1 MICU	Blood Culture	12/9/2019	MRSA
987654	Dowell	Jane	11/12/1967	11/21/2019	11/21/2019	1 MICU	Blood Culture	12/27/2019	MRSA
987654	Dowell	Jane	11/12/1967	11/21/2019	11/21/2019	1 MICU	Pleural Fluid	12/12/2019	MRSA
987654	Dowell	Jane	11/12/1967	11/21/2019	11/21/2019	1 MICU	Blood Culture	01/5/2019	MRSA
987654	Dowell	Jane	11/12/1967	11/21/2019	11/21/2019	1 MICU	Sputum	01/10/2019	MRSA
987654	Dowell	Jane	11/12/1967	11/21/2019	11/21/2019	1 MICU	Blood Culture	01/18/2019	MRSA

MRSA Blood Cultures Only

MRN	Last Name	First Name	DOB	Date Admitted to Facility	Date Admitted to Unit	Unit	Specimen Type	Date of Specimen Collection	Organism
14567	Smith	John	12/15/1937	11/15/2019	12/7/2019	1 MICU	Blood Culture	12/15/2019	MRSA
895643	Hopkins	Dave	12/12/1940	11/17/2019	12/5/2019	1 MICU	Blood Culture	12/5/2019	MRSA
895643	Hopkins	Dave	12/12/1940	11/17/2019	12/5/2019	1 MICU	Blood Culture	12/11/2019	MRSA
895643	Hopkins	Dave	12/12/1940	11/17/2019	12/5/2019	1 MICU	Blood Culture	12/12/2019	MRSA
895643	Hopkins	Dave	12/12/1940	11/17/2019	12/5/2019	1 MICU	Blood Culture	12/18/2019	MRSA
895643	Hopkins	Dave	12/12/1940	11/17/2019	12/5/2019	1 MICU	Blood Culture	12/21/2019	MRSA
895643	Hopkins	Dave	12/12/1940	11/17/2019	12/5/2019	1 MICU	Blood Culture	12/25/2019	MRSA
895643	Hopkins	Dave	12/12/1940	11/17/2019	12/5/2019	1 MICU	Blood Culture	12/27/2019	MRSA
987654	Dowell	Jane	11/12/1967	11/21/2019	11/21/2019	1 MICU	Blood Culture	12/6/2019	MRSA
987654	Dowell	Jane	11/12/1967	11/21/2019	11/21/2019	1 MICU	Blood Culture	12/9/2019	MRSA
987654	Dowell	Jane	11/12/1967	11/21/2019	11/21/2019	1 MICU	Blood Culture	12/27/2019	MRSA
987654	Dowell	Jane	11/12/1967	11/21/2019	11/21/2019	1 MICU	Blood Culture	01/5/2019	MRSA
987654	Dowell	Jane	11/12/1967	11/21/2019	11/21/2019	1 MICU	Blood Culture	01/18/2019	MRSA

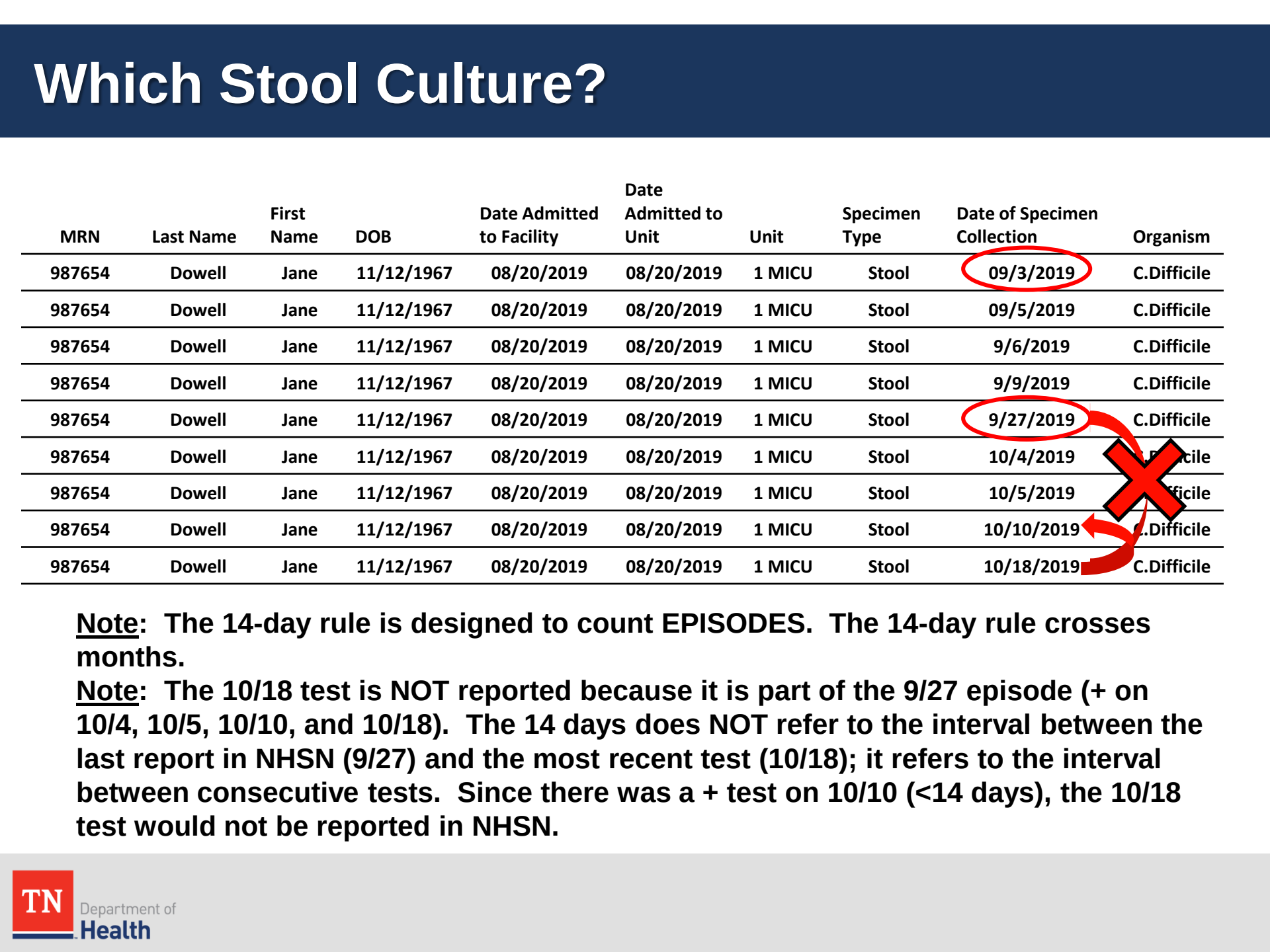
Case Study (Cont.)

- As part of the data review, Betty identifies new MRSA LabID events (blood cultures only) according to the criteria specified earlier in this presentation.
- For example, Ms. Dowell has 5 blood samples reported (+) for MRSA. Per the algorithm (14-day rule), only 2 of the 5 blood samples will be reported.

MRN	Last Name	First Name	DOB	Admit Date	Admit to unit	Unit	Specimen Type	Date of Specimen Collection	Organism
987654	Dowell	Jane	11/12/1967	11/21/2019	11/21/2019	1 MICU	Blood Culture	12/6/2019	MRSA
987654	Dowell	Jane	11/12/1967	11/21/2019	11/21/2019	1 MICU	Blood Culture	12/9/2019	MRSA
987654	Dowell	Jane	11/12/1967	11/21/2019	11/21/2019	1 MICU	Blood Culture	12/27/2019	MRSA
987654	Dowell	Jane	11/12/1967	11/21/2019	11/21/2019	1 MICU	Blood Culture	01/05/2020	MRSA
987654	Dowell	Jane	11/12/1967	11/21/2019	11/21/2019	1 MICU	Blood Culture	01/18/2020	MRSA

Which Stool Culture?

MRN	Last Name	First Name	DOB	Date Admitted to Facility	Date Admitted to Unit	Unit	Specimen Type	Date of Specimen Collection	Organism
987654	Dowell	Jane	11/12/1967	08/20/2019	08/20/2019	1 MICU	Stool	09/3/2019	C.Difficile
987654	Dowell	Jane	11/12/1967	08/20/2019	08/20/2019	1 MICU	Stool	09/5/2019	C.Difficile
987654	Dowell	Jane	11/12/1967	08/20/2019	08/20/2019	1 MICU	Stool	9/6/2019	C.Difficile
987654	Dowell	Jane	11/12/1967	08/20/2019	08/20/2019	1 MICU	Stool	9/9/2019	C.Difficile
987654	Dowell	Jane	11/12/1967	08/20/2019	08/20/2019	1 MICU	Stool	9/27/2019	C.Difficile
987654	Dowell	Jane	11/12/1967	08/20/2019	08/20/2019	1 MICU	Stool	10/4/2019	C.Difficile
987654	Dowell	Jane	11/12/1967	08/20/2019	08/20/2019	1 MICU	Stool	10/5/2019	C.Difficile
987654	Dowell	Jane	11/12/1967	08/20/2019	08/20/2019	1 MICU	Stool	10/10/2019	C.Difficile
987654	Dowell	Jane	11/12/1967	08/20/2019	08/20/2019	1 MICU	Stool	10/18/2019	C.Difficile



Note: The 14-day rule is designed to count EPISODES. The 14-day rule crosses months.

Note: The 10/18 test is NOT reported because it is part of the 9/27 episode (+ on 10/4, 10/5, 10/10, and 10/18). The 14 days does NOT refer to the interval between the last report in NHSN (9/27) and the most recent test (10/18); it refers to the interval between consecutive tests. Since there was a + test on 10/10 (<14 days), the 10/18 test would not be reported in NHSN.

Case Study 3

MRN	Last Name	First Name	DOB	Date Admitted to Facility	Date Admitted to Unit	Unit	Specimen Type	Date of Specimen Collection	Organism
987654	Smith	Jane	11/12/1967		09/10/2019	ED	Stool	09/10/2019	C.Difficile
987654	Smith	Jane	11/12/1967	09/11/2015	09/11/2019	1 MICU	Stool	09/11/2019	C.Difficile
987654	Smith	Jane	11/12/1967	09/11/2015	09/13/2019	3 West	Stool	09/14/2019	C.Difficile
987654	Smith	Jane	11/12/1967	09/11/2015	09/13/2019	3 West	Stool	09/25/2019	C.Difficile

<u>Note</u>: If a patient has a positive specimen within 14-days of a previous positive specimen, but the specimen was collected in a different location, it must be reported to NHSN as a separate event.

Resources

NHSN Resources

- **NHSN MDRO/CDI Module and Protocol**
  - https://www.cdc.gov/nhsn/pdfs/pscmanual/12pscmdro_cdadcurrent.pdf
- **NHSN MDRO and CDI Resources**
  - http://www.cdc.gov/nhsn/acute-care-hospital/cdiff-mrsa/index.html
- **MDRO & CDI LabID Event Calculator**
  - https://nhsn.cdc.gov/labid-calculator/mdrolabidcalc.html

Questions?

Information and Support

CDC - NHSN

Helpdesk email: nhsn@cdc.gov

NHSN website: www.cdc.gov/nhsn/

Tennessee Department of Health

TDH HAI inbox: hai.health@tn.gov

HAI Online Workspace:
https://sites.google.com/site/tnhaionline/home/